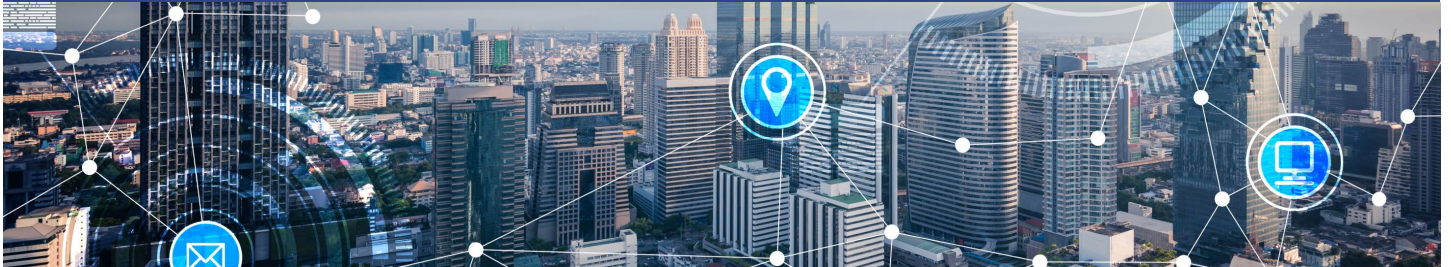


# The RX Family Flagship Product with High Performance and Scalable Product Lineup

## RENESAS RX700, RX600 MCU SERIES

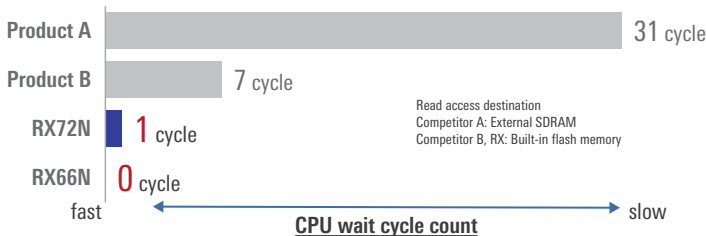


Renesas RX700 and RX600 series are ideal for real-time applications with its outstanding processing performance based on the latest RX CPU core. Abundant peripheral functions enable various device control and network control with a single chip, allowing more smaller devices developed with lesser parts needed. Also, enabling HMI control and cloud connectivity with top-level security for IoT solutions; and the RX72M supports major industrial network protocols including EtherCAT®.

| Industrial            |                           |     |             |                   |                 |                     | Office Automation |           |                       | Consumer         |   |
|-----------------------|---------------------------|-----|-------------|-------------------|-----------------|---------------------|-------------------|-----------|-----------------------|------------------|---|
| Robots, Machine tools | General-purpose inverters | PLC | Smart meter | Power conditioner | HVAC controller | Security controller | Copiers Printers  | Projector | Audiovisual equipment | Camera body Lens | Air conditioner (outdoor unit, indoor unit) |
|                       |                           |     |             |                   |                 |                     |                   |           |                       |                  |   |

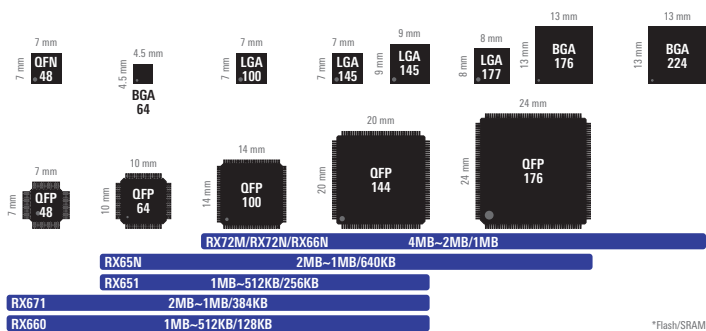
### Benefits/ Key Features

#### Overwhelming Real-Time Processing Performance



- High-speed built-in Flash Capable of no-wait operation up to 120MHz
- Stable CPU performance with no wait time
- Ideal for real-time applications with the high-speed operation

#### Large-Capacity Memory and Minimal Package Lineup



- Extensive line-up to suit market needs
- Large-capacity memory that does not require external memory
- Small package can be mounted on a small board

#### Equipped with Essential Functions for IoT Implementation

| Connectivity   | HMI   | Security  |
|--|---|---|
| <ul style="list-style-type: none"> <li>In addition to standard functions such as Ethernet, USB and CAN/CAN-FD, products supporting industrial network protocols and home bus system are also available.</li> </ul> | <ul style="list-style-type: none"> <li>LCDC I/F capable of WVGA 8-bit, WQVGA 16-bit display</li> <li>Large-capacity working memory that realizes display with 1 chip</li> <li>UI with contact/Touchless UI can be implemented with Touch Key</li> </ul> | <ul style="list-style-type: none"> <li>Trusted Secure IP enables strong and high-speed security processing</li> <li>Protect your system from hijacking and tampering</li> </ul> |

# RENESAS RX700, RX600 MCU SERIES

## Product Information

| Product | CPU            | Supply Voltage | Flash/SRAM    | HMI       |                  | Communication        |  | Security             |
|---------|----------------|----------------|---------------|-----------|------------------|----------------------|--|----------------------|
| RX72M   | RXv3<br>240MHz | 3.3V           | 4MB*/1/1MB    | LCD       | I <sup>2</sup> S | EtherCAT<br>Ethernet | CAN,SDHI,<br>USB,QSPI                  | Trusted<br>Secure IP |
| RX72N   | RXv3<br>240MHz | 3.3V           | 4MB*/1/1MB    | LCD       | I <sup>2</sup> S | Ethernet             | CAN,SDHI,<br>USB,QSPI                  | Trusted<br>Secure IP |
| RX66N   | RXv3<br>120MHz | 3.3V           | 4MB*/1/1MB    | LCD       | I <sup>2</sup> S | Ethernet             | CAN,SDHI,<br>USB,QSPI                  | Trusted<br>Secure IP |
| RX671   | RXv3<br>120MHz | 3.3V           | 2MB*/1/384KB  | Touch key | I <sup>2</sup> S | Home Bus<br>Support  | CAN,SDHI,<br>USB,QSPI                  | Trusted<br>Secure IP |
| RX65N   | RXv2<br>120MHz | 3.3V           | 2MB*/1/640KB  | LCD       | -                | Ethernet             | CAN,SDHI,<br>USB,QSPI                  | Trusted<br>Secure IP |
| RX651   | RXv2<br>120MHz | 3.3V           | 2MB*/1/640KB  | LCD       | -                | -                    | CAN,SDHI,<br>USB,QSPI                  | Trusted<br>Secure IP |
| RX660   | RXv3<br>120MHz | 2.7~5V         | 1MB/<br>128KB | -         | -                | Home Bus<br>Support  | CAN-FD,<br>Remote control<br>reception | -                    |

\*1: Dual Bank compatible

## Solution/ Development Environment

### Cloud Solution

#### Simple Cloud connection

- Obtained FreeRTOS™ certification
- Easy connection to AWS cloud



Renesas RX65N Cloud Kit

### GUI Solution

#### One-stop service

One-stop service for evaluation boards, middleware, and useful tools



emWin for RX

### Security Solution

#### Product safety

- Renesas original key management function
- One-stop solution
- Life cycle management support
- Cryptographic technology with proven safety

#### Protect from Threats



### Industrial Network Solution

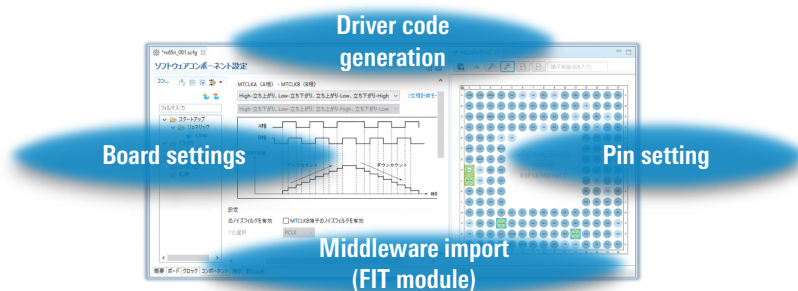
#### Multi-protocol support

Industries supporting major protocols  
Network solutions available



### Smart Configurator

Terminal setting, code generation, middleware import possible



## Long-term Product Supply Program

Renesas Electronics operates a long-term product supply program (commonly known as PLP: Product Longevity Program) so that customers with long equipment life cycles can select products with peace of mind. We will supply for up to 15 years.

For more details, please visit [www.renesas.com/RX](http://www.renesas.com/RX)



#### Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu, Koto-ku, Tokyo 135-0061, Japan  
[www.renesas.com](http://www.renesas.com)

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#### Contact information

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[www.renesas.com/contact/](http://www.renesas.com/contact/)